DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING SERVICES OFFICE ENGINEER, MS 43 1727 30TH STREET P.O. BOX 168041 SACRAMENTO, CA 95816-8041 FAX (916) 227-6214 TTY (916) 227-8454



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April 24, 2008

03-Pla-65-R19.3/R38.3 03-3338U4 CML-6203(040)

Addendum No. 3

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in PLACER COUNTY NEAR LINCOLN FROM 0.6 KM NORTH OF TWELVE BRIDGES OVERCROSSING TO 1.3 KM SOUTH OF BEAR RIVER.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on May 21, 2008.

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions, the Proposal and Contract, and the Information Available for Inspection at the North Region Construction Office.

Project Plan Sheets 1, 27, 29, 30, 33, 34, 35, 234, 235, 250, 284, 289, 290, 291, 292, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 332, 528, 554, 555, 557, 581, 582, 583, 584, 610, 930, 931, 1238, 1256, 1280, 1293 and 1294 are revised. Half-sized copies of the revised sheet are attached for substitution for the like-numbered sheets.

Project Plan Sheets 612, 613, 614, 615, 616, 617, 618, 619 and 620 are deleted.

In the Special Provisons, Section 5-1.13, "ROLLING OWNER CONTROLLED INSURANCE PROGRAM (ROCIP)," subsection, "CONTRACTOR'S INSURANCE COST IDENTIFICATION AND DEDUCTION," subsection "Contract Change Order Deduction" is deleted.

In the Special Provisions, Section 5-1.18, "PROJECT INFORMATION," the fourth paragraph "Information available for inspection at the North Region Construction Office is as follows" is revised to read:

"Information available for inspection or on compact disk at the North Region Construction Office is as follows:"

In the Special Provisions, Section 5-1.18, "PROJECT INFORMATION," under the fourth paragraph, items "M, N and O" are added as follows:

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- M. Cross sections for the D16 line from Sta. 380+80 to Sta. 386+80.
- N. Updated cross sections for the retention basin.
- O. The Department will provide staking at the intersections along the new alignment. A notice will be posted on the bidder inquiry website when this staking has been provided:

http://www.dot.ca.gov/dist3/departments/construction/bidders/responses/03-3338U4.htm

In the Special Provisions, the table following the third paragraph is deleted, and the third paragraph is replaced with the following two paragraphs:

"Construction activities within the various bodies of water and within the stream zones of the various waterways shall be restricted to April 15 through October 31, except Coon Creek and Auburn Ravine where construction activities shall be restricted to June 1 through October 31. A stream zone is defined as that portion of the stream channel that restricts lateral movement of water and is delineated at the top of the bank or the outer edge of any riparian vegetation, whichever is more landward.

Construction of the 2 drainage systems and the concrete box culverts at the South Sutter Water District Aqueduct shall be performed only between October 15 and April 15 and the aqueduct shall be fully functional by April 15."

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the sixth paragraph is deleted.

In the Special Provisions, Section 10-1.41, "EARTHWORK," is revised as attached.

In the Special Provisions, Section 10-1.42, "MATERIAL CONTAINING LEAD" is revised as attached.

In the Special Provisions, Section 10-1.51, "150 MM RECYCLED WATER LINE (BRIDGE)," subsection "MEASUREMENT AND PAYMENT," the last paragraph is revised as follow:

"Full compensation for furnishing and installing lateral restraint assemblies, steel brackets and other fittings, casings and casing insulators, dirt stops, concrete pipe supports, concrete thrust blocks, pipe wrapping tape, epoxy adhesives, steel plate hardware, lean concrete, mortar, building paper and expansion assemblies; for cleaning, closing, wrapping, and coating pipe; and for pressure testing, shall be considered as included in the contract prices paid per meter for the sizes of recycled water line involved, and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.93, "MISCELLANEOUS CONCRETE CONSTRUCTION," in the ninth, tenth, nineteenth and twentieth paragraphs "minor concrete (stamped paving) is revised to "minor concrete (stamped stone pattern)."

In the Proposal and Contract, the Engineer's Estimate Items 85, 171 and 196 are revised as attached.

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To Proposal and Contract book holders:

Replace pages 7, 11 and 12 of the Engineer's Estimate in the Proposal with the attached revised pages 7, 11 and 12 of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the NOTICE TO CONTRACTORS section of the Notice to Contractors and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This office is sending this addendum by UPS overnight mail to Proposal and Contract book holders to ensure that each receives it. A copy of this addendum is available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly ads/addendum page.html

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief Office of Plans, Specifications & Estimates Division of Engineering Services - Office Engineer

Attachments

10-1.41 EARTHWORK

Earthwork shall conform to the provisions in Section 19, "Earthwork," of the Standard Specifications and these special provisions.

Where a portion of the existing surfacing is to be removed, the outline of the area to be removed shall be cut on a neat line with a power-driven saw to a minimum depth of 50 mm before removing the surfacing. Full compensation for cutting the existing surfacing shall be considered as included in the contract price paid per cubic meter for roadway excavation and no additional compensation will be allowed therefor.

The portion of imported borrow placed within 1.5 m of the finished grade shall have a Resistance (R-Value) of not less than 10.

Reinforcement or metal attached to reinforced concrete rubble placed in embankments shall not protrude above the grading plane. Prior to placement within 0.6-m below the grading plane of embankments, reinforcement or metal shall be trimmed to no greater than 20 mm from the face of reinforced concrete rubble. Full compensation for trimming reinforcement or metal shall be considered as included in the contract prices paid per cubic meter for the types of excavation shown in the Engineer's estimate, or the contract prices paid for furnishing and placing imported borrow or embankment material, as the case may be, and no additional compensation will be allowed therefor.

Full compensation for removing existing corrugated metal pipe risers shown on the plans in areas of ditch excavation shall be considered as included in the contract price paid per cubic meter for ditch excavation and no separate payment will be made therefor.

Imported borrow shall be mineral material including rock, sand, gravel, or earth. The Contractor shall not use man-made refuse in imported borrow including:

- A. Portland cement concrete
- B. Asphalt concrete
- C. Material planed from roadway surfaces
- D. Residue from grooving or grinding operations
- E. Metal
- F. Rubber
- G. Mixed debris
- H. Rubble

Imported borrow will be measured and paid for by the cubic meter and the quantity to be paid for will be computed in the following manner:

- A. The total quantity of embankment will be computed in conformance with the provisions for roadway excavation in Section 19-2.08, "Measurement," of the Standard Specifications, on the basis of the planned or authorized cross section for embankments as shown on the plans and the measured ground surface.
- B. The Contractor, at the Contractor's option, may compact the ground surface on which embankment is to be constructed before placing any embankment thereon. If the compaction results in an average subsidence exceeding 75 mm, the ground surface will be measured after completion of the compaction. The Engineer shall be allowed the time necessary to complete the measurement of an area before placement of embankment is started in that area.
- C. The quantities of roadway excavation, structure excavation and ditch excavation, which have been used in the embankment, will be adjusted by multiplying by a grading factor to be determined in the field by the Engineer. No further adjustment will be made in the event that the grading factor determined by the Engineer does not equal the actual grading factor.
- D. The quantity of imported borrow to be paid for will be that quantity remaining after deducting the adjusted quantities of excavation from the total embankment quantity and then adding a quantity of 13,900 cubic meters for the anticipated effect of subsidence. No adjustment will be made in the event that the anticipated subsidence does not equal the actual subsidence.

- E. The Contractor may propose a plan whereby the Contractor would be paid on the basis of measured settlement in lieu of the allowance specified above. The proposal shall include complete details of the subsidence-measuring devices and a detailed plan of each installation. If the proposed plan is approved by the Engineer, the Contractor, at the Contractor's expense, shall provide, install and maintain the subsidence-measuring devices. The Engineer will take necessary readings to determine the progress of subsidence, if any, and the Contractor shall provide necessary assistance to make the readings.
- F. Installed devices which are determined by the Engineer to have been damaged will not be used for the determination of subsidence for the area the devices represent in the pattern of approved installations. The subsidence of the area represented by that installation shall be considered zero, regardless of the subsidence measured at other installations.
- G. The volumes required as a result of subsidence will be computed by the average-end-area method from the original measurements and the final measurements, including zero subsidence at all points and for all areas as provided herein. It shall be understood and agreed that the subsidence at the point of intersection of the side slopes (and end slopes at structures) with the ground line as established by the original cross sections shall be considered as zero. Unless otherwise agreed to by the Engineer, the subsidence shall be considered as zero at the points on the cross sections 15 m beyond the beginning and ending of the instrumented area. The computed volumes for such subsidence will be added to the quantities of embankment measured as specified herein.
- H. Detachable elements of the subsidence-measuring devices which can be salvaged without damage to the work shall remain the property of the Contractor and shall be removed from the highway right of way after final measurements are made.

Settlement periods are required for the bridge approach embankments at the bridges listed in the following table.

At the bridge bents listed in the following table, excavation for the footings, drilling holes for cast-in-place piles, or driving the foundation piles at each location shall not be done until the expiration of the settlement period for the embankment at the adjacent abutment of the same structure or an adjacent structure.

Embankments shall be constructed at or above the grading plane where listed in the following table:

Bridge Name or Number	Abutment Number	Settlement Period (days)		
L. L. (C. L. LIC LOII				
Industrial Ave UC and OH	A-1	30 days		
Left	A-3	30 days		
(Br No 19-0187L))	A 1	20.1		
Industrial Ave UC and OH	A-1	30 days		
Right	A-3	30 days		
(Br No 19-0187R))	A 1	20.1		
South Ingram Slough Br	A-1	30 days		
Left	A-3	30 days		
(Br No 19-0188L)		20.1		
South Ingram Slough Br	A-1	30 days		
Right	A-3	30 days		
(Br No 19-0188R)		20.1		
Auburn Ravine Bridge Lt	A-1	30 days		
(Br No 19-0191L)	A-7	30 days		
Auburn Ravine Bridge Rt	A-1	30 days		
(Br No 19-0191R)	A-7	30 days		
Markham Ravine Bridge	A-1	30 days		
Right	A-3	30 days		
(Br No 19-0192R)				
Nicolaus Road OC	A-1	30 days		
(Br No 19-0193)	A-3	30 days		
Lincoln Airport Creek	A-1	30 days		
Bridge Right	A-3	30 days		
(Br No 19-0194R)				
Coon Creek Bridge Rt	A-1	30 days		
(Br No 19-0195R)	A-6	30 days		
South Yankee Slough Br	A-1	30 days		
Right	A-2	30 days		
(Br No 19-0196R)				
North Yankee Slough Br	A-1	30 days		
Right	A-2	30 days		
(Br No 19-0197R)		-		
Big Yankee Slough Br Rt	A-1	30 days		
(Br No 19-0198R)	A-3	30 days		
North Farm OC	A-1	30 days		
(Br No 19-0201)	A-3	30 days		
Dowd Road Bridge	A-1	30 days		
(Br No 19C-0223)	A-4	30 days		

The duration of the required settlement period at each location will be determined by the Engineer. The estimated duration of the settlement periods are listed in the tables of settlement data. The Engineer may order an increase or decrease in any settlement period. An ordered increase or decrease in any settlement period will result in an increase or decrease in the number of contract working days if the settlement period involved is considered to be the current controlling operation in conformance with the provisions in Section 8-1.06, "Time of Completion," of the Standard Specifications. Adjustments of contract time due to increases or decreases in settlement periods will be made by contract change order.

The removal of surplus embankment material placed for settlement of the embankment, including material removed to conform to the finished slope lines shown on the plans, will be paid for at the contract price per cubic meter for roadway excavation.

If the Contractor elects to use the "Weep Hole and Geocomposite Drain" alternative where permitted on the plans, the geocomposite drain shall conform to the details shown on the plans and the following:

- A. Attention is directed to "Engineering Fabrics" under "Materials" of these special provisions.
- B. Geocomposite drain shall consist of a manufactured core not less than 6.35 mm thick nor more than 50 mm thick with one or both sides covered with a layer of filter fabric that will provide a drainage void. The drain shall produce a flow rate, through the drainage void, of at least 25 liters per minute per meter of width at a hydraulic gradient of 1.0 and a minimum externally applied pressure of 168 kPa.
- C. A Certificate of Compliance conforming to the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications shall be furnished for the geocomposite drain certifying that the drain produces the required flow rate and complies with these special provisions. The Certificate of Compliance shall be accompanied by a flow capability graph for the geocomposite drain showing flow rates for externally applied pressures and hydraulic gradients. The flow capability graph shall be stamped with the verification of an independent testing laboratory.
- D. Filter fabric for the geocomposite drain shall conform to the provisions for fabric for underdrains in Section 88, "Engineering Fabrics," of the Standard Specifications.
- E. The manufactured core shall be either a preformed grid of embossed plastic, a mat of random shapes of plastic fibers, a drainage net consisting of a uniform pattern of polymeric strands forming 2 sets of continuous flow channels, or a system of plastic pillars and interconnections forming a semirigid mat.
- F. The core material and filter fabric shall be capable of maintaining the drainage void for the entire height of geocomposite drain. Filter fabric shall be integrally bonded to the side of the core material with the drainage void. Core material manufactured from impermeable plastic sheeting having nonconnecting corrugations shall be placed with the corrugations approximately perpendicular to the drainage collection system.
- G. The geocomposite drain shall be installed with the drainage void and the filter fabric facing the embankment. The fabric facing the embankment side shall overlap a minimum of 75 mm at all joints and wrap around the exterior edges a minimum of 75 mm beyond the exterior edge. If additional fabric is needed to provide overlap at joints and wrap-around at edges, the added fabric shall overlap the fabric on the geocomposite drain at least 150 mm and be attached thereto.
- H. Should the fabric on the geocomposite drain be torn or punctured, the damaged section shall be replaced completely or repaired by placing a piece of fabric that is large enough to cover the damaged area and provide a minimum 150-mm overlap.
- I. Plastic pipe shall conform to the provisions for edge drain pipe and edge drain outlets in Section 68-3, "Edge Drains," of the Standard Specifications.
- J. Treated permeable base to be placed around the slotted plastic pipe at the bottom of the geocomposite drain shall be cement treated permeable base conforming to the provisions for cement treated permeable base in Section 29, "Treated Permeable Bases," of the Standard Specifications and these special provisions.
- K. The treated permeable base shall be enclosed with a high density polyethylene sheet or PVC geomembrane, not less than 250 μm thick, which is bonded with a suitable adhesive to the concrete and geocomposite drain. Surfaces to receive the polyethylene sheet shall be cleaned before applying the adhesive. The treated permeable base shall be compacted with a vibrating shoe type compactor.

Difficult earthwork is anticipated due to the presence of caving soils and high ground water at Coon Creek Bridge Right (Bridge No. 19-0195R), North Ingram Slough Bridge (Bridge No. 19-0190L/R) and Dowd Yankee Bridge (Bridge No. 19C-0223).

At Markham Ravine Bridge Right (Bridge No. 29-0192R) additional difficulties will be encountered because work is in a lake.

Structure backfill or roadway embankment within the limits of the bridge abutments as shown on the plans shall have an Expansion Index (EI) less than 50 and a Sand Equivalent (SE) greater than 20. The Expansion Index shall be determined in accordance with ASTM D4829. The Sand Equivalent shall be determined in accordance with California Test Method 217.

At the locations and to the limits shown on the plans, structure backfill (bridge) material shall also meet expansion index requirements as shown on the plans.

Full compensation for conforming to the above expansion index requirements shall be considered as included in the contract prices paid for the various contract items of work and no additional compensation will be allowed therefore.

If structure excavation or structure backfill for bridges is not otherwise designated by type and payment for the structure excavation or structure backfill has not otherwise been provided for in the Standard Specifications or these special provisions, the structure excavation or structure backfill will be measured and paid for as structure excavation (bridge) or structure backfill (bridge), respectively.

Structure excavation designated as (Type D), for footings at the locations shown on the plans, will be measured and paid for as structure excavation (Type D). Ground water or surface water is expected to be encountered at these locations, but seal course concrete is not shown or specified. Structure excavation for footings at locations not designated on the plans as structure excavation (Type D), and where ground or surface water is encountered, except locations where seal course concrete is shown or specified, will be measured and paid for as structure excavation (bridge).

Structure backfill (bridge), and subsequent compactive efforts, will be required at Pier 2 located at South Ingram Slough Bridge (Bridge No. 19-0188L/R). Site dewatering efforts shall be in place at this pier before and during the placement and compaction of suitable structure backfill (bridge) material.

Structure backfill (bridge), and subsequent compactive efforts, will be required at Piers 2, 3 and 4 located at Auburn Ravine Bridge (Bridge No. 19-0191L/R). Site dewatering efforts shall be in place at these piers before and during the placement and compaction of suitable structure backfill (bridge) material.

Furnishing, placing and compacting structure backfill (bridge) material at Pier 2 at South Ingram Slough Bridge (Bridge No. 19-0188L/R) to the limits shown on the plans will be measured and paid for as structure backfill (bridge).

Full compensation for site dewatering efforts when placing and compacting structure backfill (bridge) at Pier 2 of the South Ingram Slough Bridge (Bridge No. 19-0188L/R) and at Piers 2, 3 and 4 of the Auburn Ravine Bridge (Bridge No. 19-0191L/R) to the limits shown on the plans shall be considered as included in the contract price paid for structure backfill (bridge) and no additional compensation will be allowed therefore.

Structure excavation (Type D) retaining wall will be measured and paid for as structure excavation (Type D).

10-1.42 MATERIAL CONTAINING LEAD

This work shall consist of handling material containing lead in conformance with the Standard Specifications and these special provisions. Material within the project limits is not a hazardous waste, does not require disposal at a permitted landfill or solid waste disposal facility, and is suitable for use as fill within the project limits and on other sites outside the highway right of way; however, low levels of lead are present within the project limits.

Lead has been detected within the top 0.6 m of material in unpaved areas within the highway right of way. Levels of lead found within the project limits range from less than 2.54 to 222 mg/kg total lead with an average concentration of 26.2 mg/kg total lead based upon a 95 percent Upper Confidence Limit, as analyzed by EPA Test Method 6010 or EPA Test Method 7000 series. Levels of lead found within the project limits have an average soluble concentration of 3.35 mg/l as analyzed by the California Waste Extraction Test and based upon a 95 percent Upper Confidence Limit.

After the Contractor has completed handling materials containing lead, in conformance with the plans, Standard Specifications, and these special provisions, the Contractor shall have no responsibility for such materials in place and shall not be obligated for removal of such materials remaining within the highway right of way.

Handling material containing lead shall be in conformance with rules and regulations including, but not limited to, those of the following agencies:

California Division of Occupational Safety and Health Administration (Cal-OSHA) California Regional Water Quality Control Board, Region 5 – Central Valley Board

LEAD COMPLIANCE PLAN

The Contractor shall prepare a project specific Lead Compliance Plan to prevent or minimize worker exposure to lead while handling material containing lead. Attention is directed to Title 8, California Code of Regulations, Section 1532.1, "Lead," for specific Cal-OSHA requirements when working with lead.

The Lead Compliance Plan shall contain the elements listed in Title 8, California Code of Regulations, Section 1532.1(e)(2)(B). Before submission to the Engineer, the Lead Compliance Plan shall be approved by an Industrial Hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene. The plan shall be submitted to the Engineer at least 7 days prior to beginning work in areas containing lead.

Prior to performing work in areas containing lead, personnel who have no prior training, including State personnel, shall complete a safety training program provided by the Contractor, that meets the requirements of Title 8, California Code of Regulations, Section 1532.1, "Lead," and the Contractor's Lead Compliance Program.

Personal protective equipment, training, and washing facilities, required by the Contractor's Lead Compliance Plan shall be supplied to State personnel by the Contractor. The number of State personnel will be 3.

If the Contractor chooses to dispose of the material at a commercial landfill, the Contractor shall transport it to a Class II or Class III landfill appropriately permitted to receive the material. The Contractor shall be responsible for identifying the appropriately permitted landfill to receive the material and for all associated disposal costs including any additional sampling and analysis required by the receiving landfill. If the Contractor chooses to use the material at a construction project outside the Caltrans right of way, the Contractor shall comply with the requirements specified in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Full compensation for conforming to the requirements of this section, except for the Lead Compliance Plan, shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

The contract lump sum price paid for Lead Compliance Plan shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparing the Lead Compliance Plan, including paying the Certified Industrial Hygienist, and for providing personal protective equipment, training and medical surveillance, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

ENGINEER'S ESTIMATE 03-3338U4

		U.	5- <i>333</i> 8U4			
Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81 (S)	203012	EROSION CONTROL (DRILL SEED)	M2	3 000 000		
82 (S)	013647	EROSION CONTROL (TYPE I)	M2	10 400		
83 (S)	203026	MOVE-IN/MOVE-OUT (EROSION CONTROL)	EA	8		
84 (S)	013648	100 MM COMBINATION AIR RELEASE VALVE AND VACUUM UNIT	EA	4		
85 (S)	013649	150 MM DUCTILE IRON PIPE (PURPLE WRAPPED)	M	160		
86 (S)	208746	200 MM BITUMINOUS COATED STEEL PIPE CONDUIT (1.63 MM THICK)	M	430		
87	250201	CLASS 2 AGGREGATE SUBBASE	M3	178 000		
88	260201	CLASS 2 AGGREGATE BASE	M3	227 000		
89	377501	SLURRY SEAL	TONN	230		
90	390104	ASPHALT CONCRETE	TONN	174 000		
91	390106	ASPHALT CONCRETE (OPEN GRADED)	TONN	450		
92	390126	RUBBERIZED ASPHALT CONCRETE (TYPE G)	TONN	52 700		
93	013650	PLACE ASPHALT CONCRETE OVERSIDE DRAIN	M2	220		
94	013651	PLACE ASPHALT CONCRETE (TEXTURED PAVING)	M2	2090		
95	394044	PLACE ASPHALT CONCRETE DIKE (TYPE C)	M	270		
96	394048	PLACE ASPHALT CONCRETE DIKE (TYPE E)	M	900		
97	394049	PLACE ASPHALT CONCRETE DIKE (TYPE F)	M	130		
98	013652	CENTERLINE RUMBLE STRIP (AC, GROUND-IN INDENTATIONS)	M	20 900		
99	394054	SHOULDER RUMBLE STRIP (AC, GROUND-IN INDENTATIONS)	M	19 500		
100	397001	ASPHALTIC EMULSION (PAINT BINDER)	TONN	410		

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
161	664021	600 MM CORRUGATED STEEL PIPE (2.77 MM THICK)	M	150		
162	690160	300 MM CORRUGATED STEEL PIPE DOWNDRAIN (2.01 MM THICK)	M	16		
163	690167	450 MM CORRUGATED STEEL PIPE DOWNDRAIN (2.77 MM THICK)	M	59		
164	692385	450 MM ANCHOR ASSEMBLY	EA	4		
165	702672	600 MM CORRUGATED STEEL PIPE ENERGY DISSIPATOR (1.63 MM THICK)	EA	2		
166	013656	600 MM ANCHOR ASSEMBLY (FOR ENERGY DISSIPATOR)	EA	4		
167	013657	300 MM DISCHARGE PIPE RISER (2.01 MM THICK)	EA	38		
168	041343	250 MM WELDED STEEL PIPE CASING (BRIDGE) (6 MM THICK)	M	120		
169	041344	300 MM WELDED STEEL PIPE CASING (BRIDGE) (6 MM THICK)	M	185		
170	041345	400 MM WELDED STEEL PIPE CASING (BRIDGE) (6 MM THICK)	M	741		
171	041346	150 MM RECYCLED WATER LINE	M	286		
172	705044	450 MM STEEL FLARED END SECTION	EA	6		
173	705222	450 MM CONCRETE FLARED END SECTION	EA	13		
174	705224	600 MM CONCRETE FLARED END SECTION	EA	41		
175	705226	750 MM CONCRETE FLARED END SECTION	EA	6		
176	705227	900 MM CONCRETE FLARED END SECTION	EA	24		
177	705334	300 MM ALTERNATIVE FLARED END SECTION	EA	10		
178	013658	200 MM HDPE FLARED END SECTION	EA	38		
179	705336	450 MM ALTERNATIVE FLARED END SECTION	EA	8		
180	705337	600 MM ALTERNATIVE FLARED END SECTION	EA	3		

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
181	013659	600 MM FLAPGATE	EA	6		
182	721007	ROCK SLOPE PROTECTION (1/4 TON, METHOD B)	M3	18 000		
183	721008	ROCK SLOPE PROTECTION (LIGHT, METHOD B)	M3	4730		
184	721009	ROCK SLOPE PROTECTION (FACING, METHOD B)	M3	990		
185	721012	ROCK SLOPE PROTECTION (BACKING NO. 3, METHOD B)	M3	850		
186 (F)	041347	SLOPE PAVING (CONCRETE)(BRICK TEXTURE)	M3	425		
187	729010	ROCK SLOPE PROTECTION FABRIC	M2	35 500		
188	731504	MINOR CONCRETE (CURB AND GUTTER)	M3	390		
189	731521	MINOR CONCRETE (SIDEWALK)	M3	390		
190	013660	MINOR CONCRETE (STAMPED STONE PATTERN)	M3	55		
191	731623	MINOR CONCRETE (CURB RAMP)	M3	54		
192 (S-F)	750001	MISCELLANEOUS IRON AND STEEL	KG	15 500		
193 (S-F)	750501	MISCELLANEOUS METAL (BRIDGE)	KG	16 865		
194 (S)	800051	FENCE (TYPE WM, METAL POST)	M	1800		
195 (S)	800385	CHAIN LINK FENCE (TYPE CL-1.2)	M	2510		
196 (S)	800391	CHAIN LINK FENCE (TYPE CL-1.8)	M	42 700		
197 (S)	013661	WROUGHT IRON FENCE	M	500		
198 (S)	802595	3.0 M CHAIN LINK GATE (TYPE CL-1.8)	EA	26		
199 (S)	802671	4.3 M CHAIN LINK GATE (TYPE CL-1.8)	EA	2		
200 (S)	802675	6.1 M CHAIN LINK GATE (TYPE CL-1.8)	EA	1		